

Claims

- [c1] An electronic package for providing thermal dissipation and electrical shielding for one or more electronic devices comprising:
 - a substrate;
 - at least one electronic device mounted on said substrate;
 - a contact on said substrate for connecting to ground potential;
 - a cover for said electronic device having an opening therein positionally aligned with said contact;
 - a thermal connection between said electronic device and said cover; and
 - an electrical connection proximate to said opening between said cover and said contact on said substrate.
- [c2] The electronic package according to claim 1 wherein the electronic device is an integrated circuit device.
- [c3] The electronic package according to claim 1 wherein said cover is made of electrically and thermally conductive material.
- [c4] The electronic package according to claim 1 wherein said thermal connection is thermally conductive adhesive at-

taching said cover to said electronic device.

- [c5] The electronic package according to claim 1 wherein the shape of said opening is selected from the group consisting of a slot, round hole, partial round hole, a countersunk hole and angled slot.
- [c6] The electronic package according to claim 1 wherein said electrical connection is selected from the group consisting of conducting adhesive and solder.
- [c7] The electronic package according to claim 1 wherein said electrical connection is a member connected to the cover and the contact on the substrate.
- [c8] The electronic package according to claim 1 wherein said member is a compliant spring soldered to the cover and the contact.
- [c9] A method of assembling an electronic package which includes an electronic device and providing for thermal dissipation and electrical shielding for the electronic device comprising the steps:
 - mounting an electronic device on a substrate wherein said substrate has a contact for connection to ground potential;
 - positioning a cover over said electronic device wherein said cover has an opening therein;

positionally aligning said opening of said cover with the contact on said substrate;
attaching said cover to said electronic device; and
electrically connecting said cover to said contact by way of said opening in the cover.

- [c10] The method of assembling an electronic package according to claim 9 wherein the electronic device is an integrated circuit device.
- [c11] The method of assembling an electronic package according to claim 9 wherein said cover is electrically and thermally conductive.
- [c12] The method of assembling an electronic package according to claim 9 wherein the shape of said opening is selected from the group consisting of a slot, round hole, partial round hole, a countersunk hole and angled slot.
- [c13] The method of assembling an electronic package according to claim 9 wherein said step of attaching said cover to said electronic device includes the steps of applying thermally conductive adhesive to said electronic device, placing the cover on said adhesive and curing said adhesive.
- [c14] The method of assembling an electronic package according to claim 9 wherein the step of electrically con-

necting said cover to said contact includes the steps of applying electrically conducting adhesive into the opening in said cover to touch said cover and said contact and curing said electrically conducting adhesive.

- [c15] The method of assembling an electronic package according to claim 9 wherein said step of attaching said cover to said electronic device includes the steps of applying thermally conductive adhesive to said electronic device, placing the cover on said adhesive and partially curing said adhesive.
- [c16] The method of assembling an electronic package according to claim 15 wherein the step of electrically connecting said cover to said contact includes the steps of applying electrically conductive adhesive into the opening in said cover to touch said cover and said contact and simultaneously curing said electrically conducting adhesive and the thermally conductive adhesive located between said cover and the electronic device.
- [c17] The method of assembling an electronic package according to claim 9 wherein the step of electrically connecting said cover to said contact includes the steps of inserting a solder element into said opening and flowing said solder.

- [c18] The method of assembling an electronic package according to claim 17 wherein the solder element is selected from the group consisting of a solder ball and a solder preform.
- [c19] The method of assembling an electronic package according to claim 9 wherein the step of electrically connecting said cover to said contact includes the steps of placing a compliant member into the opening in said cover and soldering the compliant member to the contact and the cover.
- [c20] The method of assembling an electronic package according to claim 19 wherein the compliant member is a spring.